Lithologic Log Addendum

Well BLM-1-435

Cuttings of the lithologic unit from well BLM-1-435 were sent to the Department of Geological Sciences, New Mexico State University (NMSU), Las Cruces, New Mexico, for detailed petrographic analysis when identification of fine-grained, highly altered volcanic rocks at the NASA-WSTF site became difficult using conventional field methods. Petrographic reports from NMSU were received after the printing of these lithologic logs, hence the need for this addendum. The petrographic description from NMSU is included below.

Previous unit name based on field identification: **Andesite**

New Unit name based on petrographic analysis: **Porphyritic Latite**

BLM-1-435 (469')

Hornblende latite porphyry

Phenocrysts of plagioclase (0.4 - 0.5 mm) and hornblende (0.1 - 2.0 mm) are glomeroporphyritically arranged in a seriate, inersertal matrix of blocky plagioclase, hornblende, hypersthene, and magnetite. Majority of the plagioclase phenocrysts are sodic andesine to oligoclase showing progressive zoning; some are poikilitic in texture. Hornblende is relative fresh-appearing but few crystals have oxidized rims and some have been plucked during processes of making the thin section. Overall composition is 35% phenocrysts, with a plagioclase: hornblende ratio of 9:1, in 65% matrix. Rock probably originated as a massive flow or hypabyssal intrusive.

BLM-1-435 (478')

Hornblende latite porphyry

Same as BLM-1-435 (469') except orthopyroxene in this sample appears to be enstatite and this sample also contains prominent calcite veins.